

# Even 398

## Course Outline

### Financial Economics

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This course intends to familiarize the student to several aspects of the financial markets. In particular it will commence with some introductory concepts such as: a description of the participants in those markets, the role of the security and bond markets and the types of financial assets traded there, the definition of risk and uncertainty, and the time value of money. Then, it will discuss the reason that compel rational individuals to trade in financial assets: namely their attempt to obtain a preferred consumption pattern during their life time. This consideration leads to the need to understand (a) how decisions are made in the presence of risk and uncertainty and (b) how the pricing of these assets are formed. In topic (a) the theory of Expected Utility will be presented and the theory of portfolio selection will be developed. In topic (b) various asset pricing models will be discussed. In particular the Capital Asset Pricing Model, Arbitrage Pricing, and the Pricing of Options will be explained in a simplified manner.

#### Evaluation

Final Exam 45%

Mid Term 35%

Problem Sets 20%

No programmable calculators are allowed in the exams.

#### Readings

Because of the diverse academic background of the students, no single textbook has been assigned. Instead, several of chapters from a selected number of books in the era of Finance have been collected in this course package. The required readings come from the following books.

Frederic Mishkin (M): "The Economics of Money, Banking and Financial Markets", 3 ed., Harper Collins.

Ross, Westfield, Jaffe, Roberts(RWJR): "Corporate Finance", 3d Canadian ed., McGraw-Hill Ryerson.

J Berk and P. Demarzo(BD): "Corporate Finance", Addison Wesley (Pearson).

Z. Bodie, R Merton, D Cleeton(BMC): "Financial Economics", Second Edition (Pearson).

F. Fabozzi(F): "Investment Management", Second Edition, Prentice Hall.

(Note: Page numbers in square brackets [...] correspond to pages in the coursepack.)

#### Introductory Topics

#### Market Participants

(To be discussed in the class)

#### Understanding Interest Rates

Mishkin: Ch.4, pp.67-94. [pp.1-29]

Topics: Credit Market Instruments-Present Value-Yield to Maturity-Interest Rates vs. Returns

Berk and Demarzo: Ch.3, pp.47-80. [pp.31-64]. (Pages 63-80 should be read together with the topic "Decision Making under Uncertainty".)

Topics: Competitive markets- Net Present Value-Law of One Price-Arbitrage-No Arbitrage Prices

Bodie, Merton, Cleeton: Ch.4, pp108-147. [pp.65-103]. (Pages 117-143 are repetition of what it has been said above about interest rates.)

Topics: Frequency of Compounding-Effective Annual Rate.

#### Individuals

##### **Decision Making under Certainty**

Ross, Westfield, Jaffe, Roberts: Ch.3, pp.56-75. [pp.105-124]

Topics: Market Clearing-Consumption Choices over Time-Borrowing and Lending-NPV and Investment Decisions of the Corporation

##### **Decision Making under Uncertainty**

Fabozzi: Ch.3, pp.37-60. [pp.171-193]. (You should relate this to pp.63-80 of Berk and Demarzo.)

Topics: Risk Aversion-Expected Utility-Portfolio Choice-Diversification.

#### The Pricing of Assets

##### **Pricing of Bonds**

Berk and Demarzo: Ch.5, pp.124-148. [pp.126-149]

Topics: (Repetition of topics related to interest rates)-The Yield Curve.

Bodie, Merton, Cleeton: Ch.8, pp.223-243. [pp.149-170]. (It should be read together with Ch. 5 of Berk and Demarzo.)

Topics: (Repetition of topics related to interest rates)-The Yield Curve.

##### 7 Pricing of Securities-Portfolio Theory

Fabozzi: Ch.3, pp.37-60. [pp.171-193]

Topics (see Fabozzi Ch. 3 above).

##### **Capital Asset Model and other Models**

Fabozzi: Ch.4, Ch.5, pp.61-99. [pp.195-234]

Topics: Ch.4: Capital Market Line-CAPAM-Betas-Systmatic Risk-Securities Market Line.

Ch.5: Arbitrage Pricing.

##### **Pricing of Options**

Berk and Demarzo: Ch.20, Ch.21, pp.655-716. [235-295].

Topics: Ch.20: Calls-Puts-Call and Put Parity-Modification for Dividends-Debt and Equity as Options

Ch 21: The Binomial Model of Option Pricing